Amendment to the Claims

Please amend the claims as indicated below.

1. (Currently Amended) A method of regulating transceiver power consumption for a transceiver in a communications network comprising:

monitoring ~~data received by the transceiver~~ a data receiver to detect ~~a presence of~~ a received data signal; and

controlling a transceiver state machine to regulate transceiver power consumption in response to the presence or absence of ~~the data~~ a received data signal;

~~wherein the transceiver state machine includes a wake up control and a power down control, the wake up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver, and wherein the wake up control and the power down control are separate elements;~~

wherein the transceiver state machine comprises a full-on state during which a wake up control signal is sent to power on a transmitter and a power control signal is sent to power on the transceiver, a full-off state during which the wake up signal is sent to power off the transmitter and the power control signal is sent to power off the transceiver, and a pending wake-up on state during which the wake up control signal is sent to power on the transmitter and the power control signal is sent to power off the transceiver, and wherein the transceiver state machine is configured to:

transition from the full-on state to the full-off state after failing to detect a received data signal for a period determined by a first timing circuit;

transition from the full-off state to the pending wake-up on state after failing to detect a received data signal for an additional period determined by the first timing circuit; and

transition from the pending wake-up on state to the full-on state after sending out a data link signal, detecting a first received data signal in response to the data link signal within a first period determined by a second timing circuit, and detecting a second received data signal after detecting the first received data signal within a second period determined by the second signal timing circuit.

2. (Currently Amended) The method of Claim 1, wherein ~~the monitoring data received occurs during a time period of normal operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power~~ the transceiver state machine is further configured to transition from the pending wake-up on state to the full-off state after sending out the data link signal and failing to detect a first received data signal within the first period determined by the second signal timing circuit.

3. (Currently Amended) The method of Claim 1, wherein the ~~monitoring data received occurs during a time period of normal operating power consumption, and upon detecting the presence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at normal operating power.~~ transceiver state machine is further configured to transition from the pending wake-up on state to the full-off state after sending out the data link signal, detecting the first received data signal in response to the data link signal within the first period determined by the second timing circuit, and failing to detect a second received data signal after detecting the first received data signal within the second period determined by the second signal timing circuit.

4. (Currently Amended) The method of Claim 1, wherein ~~the~~ monitoring a data receiver to detect a received data signal includes comparing a ~~received data~~ signal received from the communications network with a reference signal and ~~controlling the transceiver state machine when~~ determining a magnitude of the ~~received data~~ signal received from the communications network exceeds ~~the~~ a magnitude of the reference signal.

5. (Currently Amended) The method of Claim 1, wherein the ~~monitoring data received occurs during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.~~

transceiver state machine is further configured to transition from the full-off state to the full-on state after detecting a first received data signal within a period determined by a first timing circuit, waiting for a stand-by period determined by a third timing circuit, and detecting a second received data signal after the stand-by period but before a period determined by a fourth data timing circuit.

6. (Currently Amended) The method of Claim 1, wherein the ~~monitoring data received occurs during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to transmit link determination signals to devices on the communications network.~~ transceiver state machine is further configured to remain in the full-off state after detecting a first received data signal within a period determined by a first timing circuit, waiting for a stand-by period determined by a third timing circuit, and failing to detect a second received data signal after the stand-by period but before a period determined by a fourth data timing circuit.

7 – 12 Cancelled

13. (Currently Amended) A transceiver power consumption regulator for a transceiver in a communications network comprising:

a data receiver ~~received monitor~~ located on the transceiver to detect ~~the presence or absence of~~ a received data signal; and

a transceiver state machine coupled between the data receiver and a transmitter ~~received monitor and transceiver components~~ to regulate transceiver power consumption of the transceiver in response to the presence or absence of a received data signal ~~the data received detected by the data received monitor~~;

~~wherein the transceiver state machine includes a wake up control and a power down control, the wake up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver, and wherein the wake up control and the power down control are separate elements.~~

wherein the transceiver state machine comprises a full-on state during which a wake up control signal is sent to power on the transmitter and a power control signal is sent to power on the transceiver, a full-off state during which the wake up signal is sent to power off the transmitter and the power control signal is sent to power off the transceiver, and a pending wake-up on state during which the wake up control signal is sent to power on the transmitter and the power control signal is sent to power off the transceiver, and wherein the transceiver state machine is configured to:

transition from the full-on state to the full-off state after failing to detect a received data signal for a period determined by a first timing circuit;

transition from the full-off state to the pending wake-up on state after failing to detect a received data signal for an additional period determined by the first timing circuit; and to

transition from the pending wake-up on state to the full-on state after sending out a data link signal, detecting a first received data signal in response to the data link signal within a first period determined by a second timing circuit; and detecting a second received data signal after detecting the first received data signal within a second period determined by the second signal timing circuit.

14. (Currently Amended) The transceiver power consumption regulator of Claim 13, wherein ~~the data received monitor monitors data received during a time period of normal operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.~~ the transceiver state machine is further configured to transition from the pending wake-up on state to the full-off state after sending out the data link signal and failing to detect a first received data signal within the first period determined by the second timing circuit.

15. (Currently Amended) The transceiver power consumption regulator of Claim 13, wherein the ~~data received monitor monitors data received during a time period of normal operating power consumption, and upon detecting the presence of a received signal for the first~~

~~predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at normal operating power.~~ transceiver state machine is further configured to transition from the pending wake-up on state to the full-off state after sending out the data link signal, detecting the first received data signal in response to the data link signal within the first period determined by the second timing circuit, and failing to detect a second received data signal after detecting the first received data signal within the second period determined by the second signal timing circuit.

16. (Currently Amended) The transceiver power consumption regulator of Claim 13, wherein the data ~~received monitor monitors data received~~ receiver detects a received data signal by comparing a ~~received data~~ signal received from the communications network with a reference signal and ~~controls the transceiver state machine when~~ determining a magnitude of the ~~received data~~ signal received from the communications network exceeds a magnitude of the reference signal.

17. (Currently Amended) The transceiver power consumption regulator of Claim 13, wherein the ~~data received monitor monitors data received during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.~~ transceiver state machine is further configured to transition from the full-off state to the full-on state after detecting a first received data signal within a period determined by a first timing circuit, waiting for a stand-by period of time determined by a third timing circuit, and detecting a second received data signal after the stand-by period but before a period determined by a fourth data timing circuit.

18. (Currently Amended) The transceiver power consumption regulator of Claim 13, wherein the ~~data received monitor monitors data received during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to have link determination signals~~

~~transmitted by the transceiver to devices on the communications network.~~ transceiver state machine is further configured to remain in the full-off state after detecting a first received data signal within a period determined by a first timing circuit, waiting for a stand-by period determined by a third timing circuit, and failing to detect a second received data signal after the stand-by period but before a period determined by a fourth data timing circuit.

19- 24 Cancelled